TOWN OF FAIRHAVEN, MASSACHUSETTS

GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

PREPARED FOR:

FAIRHAVEN BPW
5 ARSENE STREET
FAIRHAVEN, MA 02719

PUBLIC WORKS DEPARTMENT

VINCENT FURTADO – BPW SUPERINTENDENT
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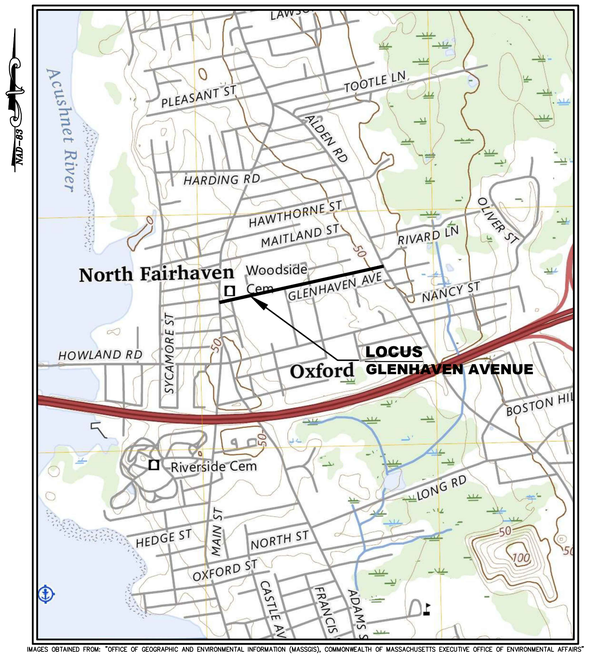
RENE ROBILLARD – SEWER SUPERINTENDENT
JEFF FURTADO – WATER SUPERINTENDENT



IMAGES OBTAINED FROM: "OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS"

LOCUS PLAN
SCALE : 1"=1000'±

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COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. CARTER
CIVIL
33907
REGISTERED PROFESSIONAL ENGINEER

3/4/2026

BID SET

GCG ASSOCIATES INC. CONSULTING ENGINEERS WILMINGTON, MASSACHUSETTS

Tab: COVER Plot Style: GCG-2018.ctb Plotted By: Lucas Brinkman
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GENERAL NOTES

1. PLANS AND TOPOGRAPHIC INFORMATION ARE PREPARED FROM A GROUND INSTRUMENT SURVEY AND AN AERIAL DRONE SURVEY ON DECEMBER 5, 2025 PERFORMED BY GCG ASSOCIATES, INC.
2. THE LOCATIONS SHOWN REFER TO MASSACHUSETTS STATE PLANE COORDINATE SYSTEM. (NAD 83 –NAVD 88).
3. PROPERTY LINES AND SIDELINES WERE ESTABLISHED, APPROXIMATELY, FROM MASS GIS DATA LAYERS.
4. THE LOCATIONS OF SUBSURFACE UTILITIES AND STRUCTURES WERE OBTAINED FROM AVAILABLE TOWN AND UTILITY RECORDS. THE SIZE, TYPE AND LOCATION OF UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL PROPERLY LOCATE THE UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN UTILITY INFORMATION BY CONTACTING DIGSAFE (811).
5. THE CONTRACTOR SHALL EXCAVATE TEST PITS ALONG THE ALIGNMENT OF THE PROPOSED WATER SYSTEM TO LOCATE THE EXISTING SEWER, WATER, DRAIN AND GAS MAINS AND SERVICES AS REQUIRED BY THE ENGINEER AND PRIOR TO ORDERING THE WATER SYSTEM AND COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL PLAN AND PERFORM TEST PIT EXCAVATION WELL IN ADVANCE OF COMMENCING CONSTRUCTION TO ALLOW TIME TO REVIEW ACTUAL CONDITIONS ENCOUNTERED. TEST PITS NOT SPECIFICALLY IDENTIFIED SHALL BE EXCAVATED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER. INCLUDE FOR PAYMENT UNDER THE UNCLASSIFIED EXCAVATION ITEM.
6. WATER MAINS ARE ASSUMED TO BE 5 FEET BELOW THE EXISTING GROUND SURFACE. GAS LINES ARE ASSUMED TO BE 3 FEET BELOW THE EXISTING GROUND SURFACE. TELEPHONE AND ELECTRIC CONDUIT ARE ASSUMED TO BE 2 FEET BELOW THE EXISTING GROUND SURFACE.
7. LOCATION OF PROPOSED WATER SYSTEM MAY BE ALTERED IN THE FIELD BY THE ENGINEER TO SUIT FIELD CONDITIONS.
8. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A CONSTRUCTION SCHEDULE DELINEATING THE SEQUENCE OF WORK, TRAFFIC MANAGEMENT PLAN AND ESTIMATED TIME OF COMPLETION OF EACH SEGMENT OF WORK, PRIOR TO THE COMMENCEMENT OF WORK.
9. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS TRAFFIC FLOW DURING CONSTRUCTION SATISFACTORY TO THE ENGINEER AND THE TOWN OF FAIRHAVEN. NO EQUIPMENT SHALL BE ALLOWED TO BE PARKED ON THE ROAD WHEN NOT IN USE. MATERIALS SHALL NOT BE STOCKPILED ON THE ROAD.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE RESTORATION AND CLEAN UP UPON COMPLETION OF THE PROJECT. PAYMENT UNDER ASSOCIATED ITEM.
11. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES AND PROCEDURES, AND FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH ALL WORK INCLUDED UNDER THIS CONTRACT. THE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL SAFETY BARRIERS, WARNING FLASHERS AND THE LIKE, AS REQUIRED BY THE CONDUCT OF THE WORK FOR THE PROTECTION OF WORKERS AND NON–WORKERS ALIKE. THE CONTRACTORS ATTENTION IS DIRECTED TO OSHA REQUIREMENTS.
12. ALL CONSTRUCTION SIGNING SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
13. PRIOR TO THE PROPOSED CONSTRUCTION ON GLENHAVEN AVENUE, THE CONTRACTOR SHALL SUBMIT FOR REVIEW BY THE TOWN, A TRAFFIC MANAGEMENT PLAN IN COMPLIANCE WITH MASSDOT AND MUTCD. SAID PLAN WILL SHOW HOW TRAFFIC FLOW WILL BE HANDLED DURING CONSTRUCTION.
14. TRENCH DEWATERING COSTS THROUGHOUT THE DURATION OF THE PROPOSED PROJECT SHALL BE INCLUDED IN THE APPLICABLE BID ITEMS. GROUNDWATER ELEVATION IS ASSUMED TO BE 3' BELOW THE EXISTING ROADWAY FOR BIDDING PURPOSES.
15. ALL CONSTRUCTION MATERIAL, DEBRIS, ASPHALT, SOIL, ETC. THAT IS REMOVED FROM THE SITE SHALL BE HANDLED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
16. RETIRED GAS MAIN AND SERVICES WERE LEFT IN PLACE. CONTRACTOR SHOULD REMOVE AND CAP ANY DISTURBED RETIRED GAS MAIN.

WATER SYSTEM NOTES

1. LOCATION OF PROPOSED WATER MAINS AND APPURTENANCES MAY BE ALTERED IN THE FIELD BY THE ENGINEER TO SUIT FIELD CONDITIONS.
2. THE EXISTING WATER MAIN ON GLENHAVEN AVENUE IS A MIX OF 4" AND 6" AC, CAST IRON AND DUCTILE IRON PIPE
3. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING WATER SERVICES SHOWN ON THE PLAN AND BE RESPONSIBLE FOR LOCATING ANY ADDITIONAL SERVICES NOT SHOWN.
4. EXISTING WATER SERVICE REPLACEMENT SHALL BE DONE ONCE THE PROPOSED WATER MAIN IS TESTED AND DISINFECTED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL AFFECTED WATER CUSTOMERS, IN WRITING, OF SHUTTING OFF SERVICE AT LEAST TWO DAYS PRIOR TO SHUTDOWN. NOTICE CARDS WILL BE FURNISHED BY THE CONTRACTOR WHICH WILL INCLUDE THE HOURS OF SHUTDOWN AND NOTE THAT A TEMPORARY RUSTY WATER CONDITION MAY EXIST. NOTICE CARDS WILL ALSO HAVE SPACE FOR THE CONTRACTOR TO FILL IN THE SPECIFIC DATES FOR EACH SHUTDOWN. THE WORK SHALL BE SCHEDULED IN SECTIONS, AS APPROVED BY THE ENGINEER, AS IT IS NECESSARY TO ALLOW FOR COMPLETION OF THE WORK AND RESTORATION OF SERVICE TO THE CUSTOMER WITHIN THE TIMES SPECIFIED BY THE ENGINEER.
6. PROPOSED FITTINGS AND VALVES SHALL BE RESTRAINED BY MJ RESTRAINTS (MEGALUG OR EQUAL).
7. PROPOSED CORPORATION COCKS, CURB STOPS AND COPPER TUBING FOR EACH HOUSE SERVICE SHALL BE "LEAD FREE" AND A MINIMUM OF ¾" INCH IN SIZE AND ACCORDING TO THE FOLLOWING LIST AS NOTED OR AS DIRECTED BY THE ENGINEER.
8. UNLESS OTHERWISE NOTED, THE PROPOSED WATER MAIN SHALL BE INSTALLED WITH A MINIMUM GROUND COVER OF FIVE FEET.
9. PROPOSED WATER PIPE SHALL BE CEMENT LINED DUCTILE IRON (C.L.D.I.), CLASS 52.
10. THE EXISTING WATER SYSTEM SHALL BE ABANDONED BY CLOSING VALVES, REMOVING VALVE BOXES AND HYDRANTS, CAPPING ALL OPEN PIPE ENDS, REMOVING THE TEMPORARY COUPLINGS AND CONNECTIONS UPON ACTIVATION OF THE PROPOSED WATER SYSTEM
11. ANY EXISTING WATER PIPE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE OF THE ASSOCIATED PIPE REMOVAL ITEM.
12. ALL EXISTING VALVES AND HYDRANTS REMOVED FROM THE WORK SHALL BE DELIVERED TO THE FAIRHAVEN DPW YARD BY THE CONTRACTOR OR DISPOSED OF BY THE CONTRACTOR AS DETERMINED BY THE ENGINEER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
13. ALL EXISTING VALVE BOXES, FRAMES AND COVERS REMOVED FROM THE WORK SHALL BE DELIVERED TO THE FAIRHAVEN DPW GARAGE BY THE CONTRACTOR OR DISPOSED OF BY THE CONTRACTOR AS DETERMINED BY THE ENGINEER.
14. THE TOWN OF FAIRHAVEN SHALL OPERATE ALL WATER VALVES. TO FACILITATE WORK IN THIS CONTRACT IT IS UNDERSTOOD THAT NUMEROUS VALVES WILL NEED TO BE OPERATED. PRIOR TO OPERATING ANY VALVE THE CONTRACTOR SHALL NOTIFY THE FAIRHAVEN WATER DEPARTMENT AND SHALL HAVE THE ENGINEER PRESENT.
15. THE EXISTING WATER MAIN ON GLENHAVEN AVENUE IS A MIX OF ASBESTOS CEMENT, CAST IRON AND DUCTILE IRON. CUTTING OR CAPPING THAT REQUIRES REMOVAL OF AC PIPE SHALL BE PERFORMED IN CONFORMANCE WITH STATE REGULATIONS AND PAID FOR UNDER THE ASSOCIATED ITEM. ABANDONED MAINS SHALL BE CAPPED IN PLACE WITH DI FITTINGS, WITH TRANSITION GASKETS, AND CONCRETE.

CONSTRUCTION SEQUENCE

1. SPRING/SUMMER 2026: INSTALL PROPOSED WATER BYPASS SYSTEM
2. SPRING/SUMMER 2026: INSTALL PROPOSED WATER MAIN, SERVICES AND TEMPORARY TRENCH PAVEMENT ON GLENHAVEN AVENUE FROM MAIN STREET TO ALDEN ROAD.
3. FALL 2026: INSTALL PERMANENT TRENCH PAVEMENT.

TRENCH PAVING NOTES

1. TRENCHES MAY BE COVERED WITH STEEL PLATES OVERNIGHT WITH APPROVAL FROM THE TOWN OF FAIRHAVEN OR ENGINEER. STEEL PLATES MAY NOT BE LEFT OVER THE WEEKEND.
2. TEMPORARY TRENCH PATCH IS TO BE PLACED EVERY FRIDAY (WITH EXCEPTIONS MADE FOR WEATHER) IN ONE COMPACTED LIFT, 2" SURFACE COURSE.
3. PERMANENT TRENCH PATCH IS TO BE PAVED AT THE CONCLUSION OF THE PROJECT IN THE FALL IN TWO COMPACTED LIFTS, 2 1/2" INTERMEDIATE COURSE AND 1 1/2" SURFACE COURSE, WITH 1' (MIN.) CUT BACKS ON EITHER SIDE.
4. ALL TRENCHES IN EXISTING PAVEMENT ARE TO BE SAW CUT WHERE THE PROPOSED PAVEMENT SHALL MEET TO ALLOW A SMOOTH TRANSITION AFTER PAVING. NO OTHER METHOD OF CUTTING IS ACCEPTABLE. ALL JOINTS SHALL BE SANDED AND SEALED.
5. ALL TRENCHES SHALL BE MECHANICALLY COMPACTED TO 95% COMPACTION.
6. THE CONTRACTOR SHALL REMOVE AND REPLACE ALL PAVEMENT DAMAGED DURING THE INSTALLATION OF THE PROPOSED UTILITY.
7. THE CONTRACTOR SHALL PERMANENTLY RE–STRIPE EXISTING PAVEMENT MARKINGS AS NECESSARY AFTER PERMANENT TRENCH PATCH HAS BEEN INSTALLED..

STOCKPILED EXCAVATED MATERIALS

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING A LOCATION FOR STAGING AND STORING STOCKPILED MATERIALS.
2. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF LOCATION AND ANY PRIVATE AGREEMENTS AND ALL FEES THAT MAY BE ASSOCIATED WITH THE USE OF AN AREA FOR STORING STOCKPILED MATERIALS.
3. THE TOWN OF FAIRHAVEN IS NOT RESPONSIBLE FOR PROVIDING A LOCATION FOR STAGING OR STORAGE OF STOCKPILED MATERIAL.
4. MATERIALS SHALL NOT BE STOCKPILED ON THE ROAD OR IN PUBLIC PARKING AREAS. CONTRACTOR SHALL UTILIZE TRUCKS TO STOCKPILE MATIERIALS DURING WATER MAIN AND SERVICE INSTALLATION TO PREVENT DAMAGE TO THE EXISTING ROADWAY.
5. NO EQUIPMENT SHALL BE ALLOWED TO BE PARKED ON THE ROAD WHEN NOT IN USE.
6. STOCKPILED SUITABLE EXCAVATED MATERIAL SHALL BE USED ONSITE FOR SUITABLE TRENCH BACKFILL AND OTHER AREAS REQUIRING SUITABLE BACKFILL. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE PLACEMENT OF THIS MATERIAL.
7. ALL SURPLUS EXCAVATED MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF OFFSITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.

MISCELLANEOUS NOTES

1. THE CONTRACTOR SHALL CUT JOINTS IN THE EXISTING PAVEMENT AREAS WHERE THE PROPOSED PERMANENT TRENCH PAVEMENT SHALL MEET TO ALLOW A SMOOTH TRANSITION AFTER PAVING. ALL JOINTS SHALL BE SANDED AND SEALED.
2. THE CONTRACTOR WILL INSTALL ALL TEMPORARY SEDIMENTATION BARRIERS AS REQUIRED DURING CONSTRUCTION.
3. PAYMENT FOR REMOVING AND DISPOSING OF AC PIPE AS SPECIFIED AND SHOWN ON THE PLANS TO BE INCLUDED IN THE ASSOCIATED PIPE REMOVAL ITEM. ALL OTHER PIPE MATERIAL REMOVAL WILL BE PAID UNDER THE ASSOCIATED PIPE INSTALLATION ITEM.
4. ANY COORDINATION OF RELOCATION OF WATER, SEWER, ELECTRIC, TELEPHONE, AND CABLE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. ANY COORDINATION OF RELOCATION OF STREET SIGNS, MAILBOXES ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. EXISTING GRATES, FRAMES AND COVERS REMOVED FROM THE WORK SHALL BE DELIVERED TO THE FAIRHAVEN DPW BY THE CONTRACTOR.
7. ALL STONE COBBLES FOUND DURING EXCAVATION SHALL BE DELIVERED TO THE FAIRHAVEN DPW BY THE CONTRACTOR.
8. ALL TRENCHES SHALL BE SAWCUT ONLY. NO OTHER METHOD OF CUTTING THE EXISTING PAVEMENT SHALL BE ACCEPTABLE. NO SEPARATE PAYMENTS SHALL BE MADE FOR THIS CUTTING.
9. POLICE DETAILS AND FLAGGERS FOR TRAFFIC CONTROL WILL BE PAID FOR BY AN ALLOWANCE THROUGH THE CONTRACT. THE CONTRACTOR SHALL COORDINATE ALL DETAIL ASSIGNMENTS AND ALL COSTS INCLUDING COORDINATION SHALL BE INCLUDED UNDER ALL ITEMS IN THE CONTRACT.
10. THE CONTRACTOR SHALL LOAM & SEED ALL DISTURBED AREAS.
11. THE CONTRACTOR SHALL PROVIDE GENERAL CLEAN–UP TO THE ENTIRE PROJECT SITE. INCLUDE PAYMENT UNDER APPROPRIATE ITEM.
12. ALL CASTINGS, GATE BOXES, ETC. DAMAGED DURING CONSTRUCTION SHALL BE SUPPLIED AND REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. THE CONTRACTOR SHALL INCLUDE THE COST IN ALL BID ITEMS.
13. THE CONTRACTOR SHALL FURNISH AND INSTALL OR REMOVE AND REPLACE SIGNS AS REQUIRED TO PERFORM THE PROPOSED WORK. PAYMENT TO BE INCLUDED UNDER MISCELLANEOUS WORK ITEM.
14. THE CONTRACTOR SHALL BE PAID FOR WORK REQUIRED TO SUPPORT OR REMOVE AND REPLACE EXISTING STRUCTURES AND UTILITY LINES ADJACENT TO OR WITHIN THE LIMITS OF TRENCH EXCAVATION UNDER THE MISCELLANEOUS WORK ITEM.
15. THE CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC ON THE STREET AT ALL TIMES DURING THE CONSTRUCTION, AND SHALL MAINTAIN ACCESS TO ALL ABUTTING DRIVEWAYS AND ACCESS WAYS.
16. THE CONTRACTOR SHALL PROTECT THE EXISTING ROADWAY BY NOT STOCKPILING SOIL ON THE ROADWAY DURING CONSTRUCTION.

ABBREVIATIONS

ALT	ALTERNATE
BB	BITUMINOUS BERM
BND	BOUND
BLDG	BUILDING
BIT CONC	BITUMINOUS CONCRETE
BM	BENCH MARK
BOL	BOLLARD
BRK	BRICK
CB	CATCH BASIN
CS	COMBINED SEWER
C	CONDUIT
℄	CENTERLINE
CIP	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CSMH	COMBINED SEWER MANHOLE
CST	COBBLESTONE
CULV	CULVERT
CO	COUNTY
CONC	CONCRETE
C.L.D.I.	CONC. LINED DUCTILE IRON
CLF	CHAIN LINK FENCE
DI	DUCTILE IRON PIPE
DR	DRIVE
DMH	DRAIN MANHOLE
EMH	ELECTRIC MANHOLE
EX	EXISTING
FAB	FIRE ALARM BOX
EOP	EDGE OF PAVEMENT
GC	GRANITE CURB
GG	GAS GATE
GS	GAS SERVICE
GIP	GALVANIZED IRON PIPE
HW	HEADWALL
HSE	HOUSE
HOR	HORIZONTAL
HYD	HYDRANT
HP	HIGH PRESSURE
LP	LIGHT POLE
MB	MAIL BOX
MH	MANHOLE
MIN	MINIMUM
PE	POLYETHYLENE PIPE
PROP	PROPOSED
PL	APPROXIMATE PROPERTY LINE
RCP	REINFORCED CONCRETE PIPE
RET WALL	RETAINING WALL
ROW	APPROXIMATE RIGHT OF WAY
RR	RAILROAD
SB	STONE BOUND
S	SIGN
SMH	SEWER MANHOLE
STA	STATION
S	SEWER
SS	SEWER SERVICE
STL	STEEL
SW	SIDEWALK
TBM	TEMPORARY BENCHMARK
TMH	TELEPHONE MANHOLE
TR	TREE
TYP	TYPICAL
UP	UTILITY POLE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
W	WATER MAIN
WG	WATER GATE
WD	WOOD
WIP	WROUGHT IRON PIPE
WS	WATER SERVICE
WSO	WATER SERVICE SHUTOFF
WV	WATER VALVE

SYMBOLS

- BENCHMARK
- BOUND
- BUILDING
- CATCH BASIN
- DRAIN MANHOLE
- ELECTRIC MANHOLE
- FLARED END
- GAS GATE
- HAYBALE
- HEADWALL
- HYDRANT
- IRON PIPE
- LIGHTPOLE
- MAILBOX
- MANHOLE
- PERC TEST
- SEWER MANHOLE
- TELEPHONE MANHOLE
- TEST PIT
- TREE
- SIGN
- UTILITY POLE
- WATER GATE

LINEWORK

EXISTING	PROPOSED	
100	100	CONTOUR MAJOR
101	101	CONTOUR MINOR
		CURB
D	D	DRAIN LINE
		DRIVEWAY
		EDGE OF PAVEMENT
		FENCE
G	G	GAS LINE
S	S	SEWER LINE
		SIDEWALK
W	W	WATER LINE

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

NOTES, LEGEND AND ABBREVIATIONS

COMMONWEALTH OF MASSACHUSETTS — MICHAEL J. CARTER — CIVIL — No. 39107 — REGISTERED PROFESSIONAL ENGINEER

3/4/2026

GCG ASSOCIATES, INC.
WILMINGTON MASSACHUSETTS

SCALE: 1" = 20' DATE: MARCH 4, 2026

JOB NO.\FILE NAME: 25128–BID

DESIGNED BY: L.P.B.
DRAWN BY: W.P.S.
CHECKED BY: M.J.C.

PLAN NO. 2 OF 9

Tab: NOTES Plot Style: GCG-2016.stb Plotted By: Lucas Brinkman

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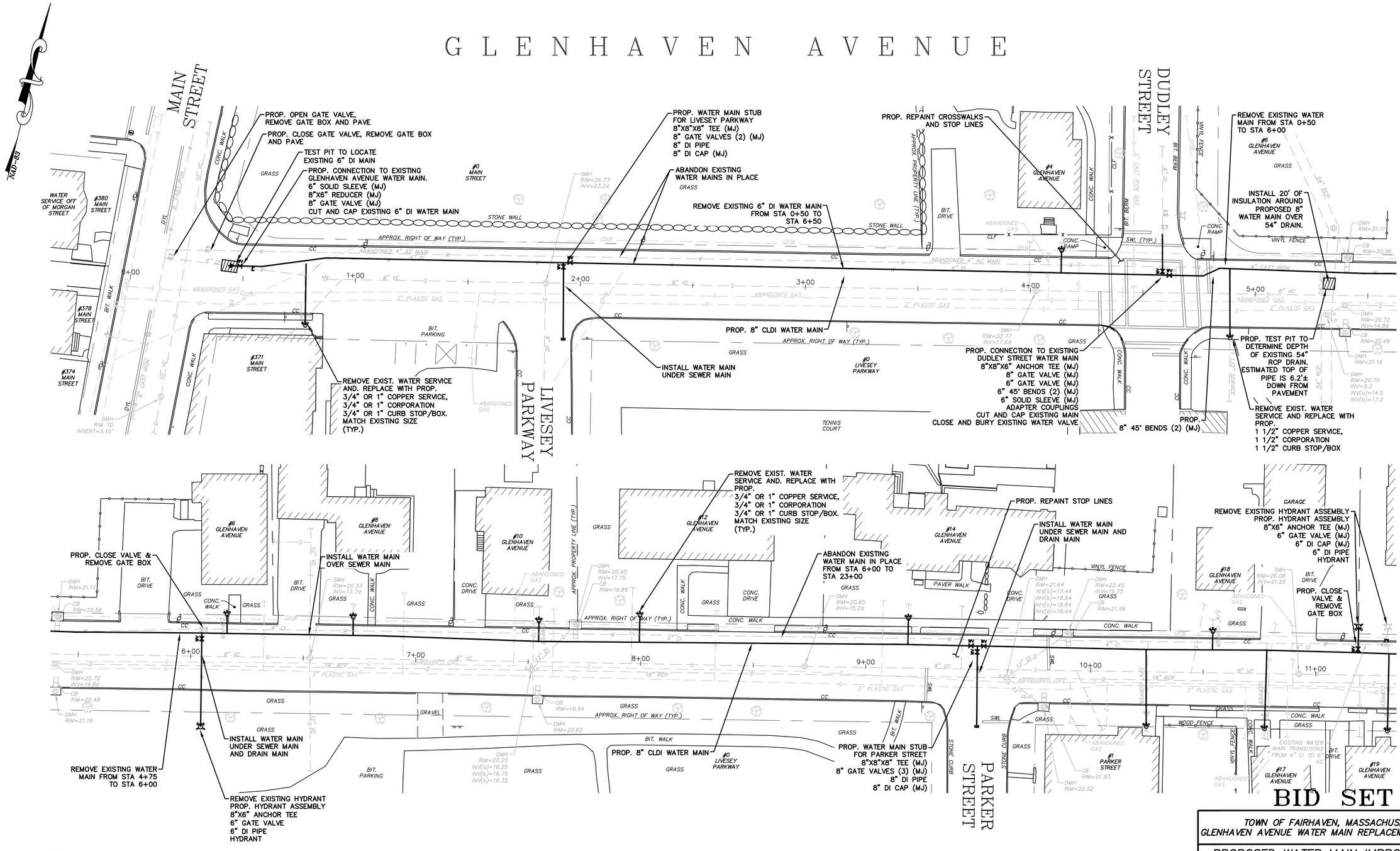
GLENHAVEN AVENUE


NAD-83
MAIN STREET
DUDLEY STREET
LIVESEY PARKWAY
PARKER STREET
PROP. OPEN GATE VALVE, REMOVE GATE BOX AND PAVE
PROP. CLOSE GATE VALVE, REMOVE GATE BOX AND PAVE
TEST PIT TO LOCATE EXISTING 6" DI MAIN
PROP. CONNECTION TO EXISTING GLENHAVEN AVENUE WATER MAIN. 6" SOLID SLEEVE (MJ) 8"X6" REDUCER (MJ) 8" GATE VALVE (MJ) CUT AND CAP EXISTING 6" DI WATER MAIN
PROP. WATER MAIN STUB FOR LIVESEY PARKWAY 8"X8"X6" TEE (MJ) 8" GATE VALVES (2) (MJ) 8" DI PIPE 8" DI CAP (MJ)
ABANDON EXISTING WATER MAINS IN PLACE
REMOVE EXISTING 6" DI WATER MAIN FROM STA 0+50 TO STA 6+50
PROP. REPAINT CROSSWALKS AND STOP LINES
REMOVE EXISTING WATER MAIN FROM STA 0+50 TO STA 6+00
INSTALL 20' OF INSULATION AROUND PROPOSED 8" WATER MAIN OVER 54" DRAIN.
PROP. 8" CLDI WATER MAIN
INSTALL WATER MAIN UNDER SEWER MAIN
PROP. CONNECTION TO EXISTING DUDLEY STREET WATER MAIN 8"X8"X6" ANCHOR TEE (MJ) 8" GATE VALVE (MJ) 6" GATE VALVE (MJ) 6" 45° BENDS (2) (MJ) 6" SOLID SLEEVE (MJ) ADAPTER COUPLINGS CUT AND CAP EXISTING MAIN CLOSE AND BURY EXISTING WATER VALVE
PROP. 8" 45° BENDS (2) (MJ)
PROP. TEST PIT TO DETERMINE DEPTH OF EXISTING 54" RCP DRAIN. ESTIMATED TOP OF PIPE IS 6.2'± DOWN FROM PAVEMENT
REMOVE EXIST. WATER SERVICE AND REPLACE WITH PROP. 1 1/2" COPPER SERVICE, 1 1/2" CORPORATION 1 1/2" CURB STOP/BOX
REMOVE EXIST. WATER SERVICE AND. REPLACE WITH PROP. 3/4" OR 1" COPPER SERVICE, 3/4" OR 1" CORPORATION 3/4" OR 1" CURB STOP/BOX. MATCH EXISTING SIZE (TYP.)
REMOVE EXIST. WATER SERVICE AND. REPLACE WITH PROP. 3/4" OR 1" COPPER SERVICE, 3/4" OR 1" CORPORATION 3/4" OR 1" CURB STOP/BOX. MATCH EXISTING SIZE (TYP.)
PROP. REPAINT STOP LINES
INSTALL WATER MAIN UNDER SEWER MAIN AND DRAIN MAIN
REMOVE EXISTING HYDRANT ASSEMBLY
PROP. HYDRANT ASSEMBLY 8"X6" ANCHOR TEE (MJ) 6" GATE VALVE (MJ) 6" DI CAP (MJ) 6" DI PIPE HYDRANT
PROP. CLOSE VALVE & REMOVE GATE BOX
PROP. CLOSE VALVE & REMOVE GATE BOX
INSTALL WATER MAIN OVER SEWER MAIN
ABANDON EXISTING WATER MAIN IN PLACE FROM STA 6+00 TO STA 23+00
REMOVE EXISTING WATER MAIN FROM STA 4+75 TO STA 6+00
INSTALL WATER MAIN UNDER SEWER MAIN AND DRAIN MAIN
REMOVE EXISTING HYDRANT
PROP. HYDRANT ASSEMBLY 8"X6" ANCHOR TEE 6" GATE VALVE 6" DI PIPE HYDRANT
PROP. 8" CLDI WATER MAIN
PROP. WATER MAIN STUB FOR PARKER STREET 8"X8"X6" TEE (MJ) 8" GATE VALVES (3) (MJ) 8" DI PIPE 8" DI CAP (MJ)
#380 MAIN STREET
#378 MAIN STREET
#374 MAIN STREET
#371 MAIN STREET
#0 MAIN STREET
#0 LIVESEY PARKWAY
#4 GLENHAVEN AVENUE
#6 GLENHAVEN AVENUE
#8 GLENHAVEN AVENUE
#10 GLENHAVEN AVENUE
#12 GLENHAVEN AVENUE
#14 GLENHAVEN AVENUE
#18 GLENHAVEN AVENUE
#19 GLENHAVEN AVENUE
#17 GLENHAVEN AVENUE
#1 PARKER STREET
WATER SERVICE OFF OF MORGAN STREET
APPROX. RIGHT OF WAY (TYP.)
APPROX. PROPERTY LINE (TYP.)
STONE WALL
ABANDONED 4" AC MAIN
ABANDONED GAS
2" PLASTIC GAS
10" VC
8" VC
12" RCP
18" RCP
6" DI
4" CI
4" CAST IRON
54" RCP
BIT. WALK
CONC. WALK
BIT. PARKING
BIT. DRIVE
CONC. DRIVE
CONC. RAMP
TENNIS COURT
PAVER WALK
VINYL FENCE
WOOD FENCE
STONE CURB
GRAVEL
GRASS
GARAGE
SMH RIM=26.73 INV=23.2±
SMH RIM=20.37 INV=13.7±
SMH RIM=20.45 INV=17.75
SMH RIM=20.65 INV=15.2±
SMH RIM=22.77 INV=17.6±
SMH RIM=26.06 INV=21.26
DMH RIM TO INVERT=5.10'
DMH RIM=21.11
DMH RIM=20.72 INV=14.8±
DMH RIM=20.48
DMH RIM=21.16
DMH RIM=20.62
DMH RIM=20.25 INV(a)=16.25 INV(b)=16.75 INV(c)=16.35
DMH RIM=21.64 INV(a)=17.44 INV(b)=18.64 INV(c)=18.64 INV(d)=18.64
DMH RIM=22.45 INV=19.75
DMH RIM=22.52
DMH RIM=20.70 INV=9.2 INV(a)=14.5 INV(b)=17.2
CB RIM=20.56
CB RIM=19.94
CB RIM=19.89
CB RIM=21.96
CB RIM=21.93
0+00
1+00
2+00
3+00
4+00
5+00
6+00
7+00
8+00
9+00
10+00
11+00

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

PROPOSED WATER MAIN IMPROVEMENTS
GLENHAVEN AVENUE
STA 0+00 TO STA 11+25

NOTE:

1. THE EXISTING WATER MAIN ON GLENHAVEN AVENUE IS A MIX OF 4", 6" AND 8" PIPE, WITH MATERIALS INCLUDING AC PIPE, CAST IRON PIPE AND DUCTILE IRON PIPE.
2. THE EXISTING WATER MAIN DEPTH RANGES FROM 5' TO 2.5'.

PLAN
SCALE: 1" = 20'

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. CARTER
No. 35007
REGISTERED PROFESSIONAL ENGINEER
3/4/2026

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WILMINGTON MASSACHUSETTS

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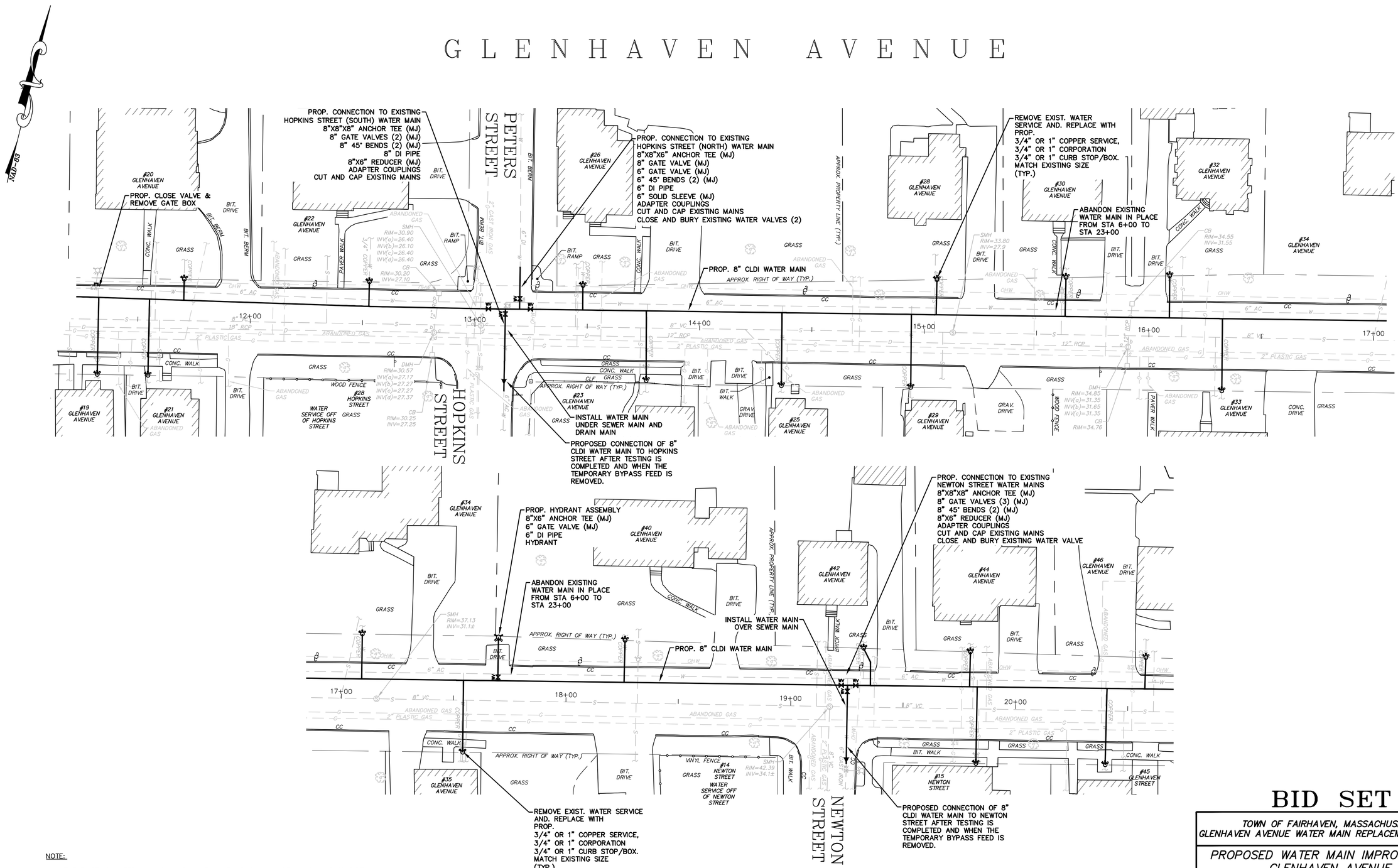
CHECKED BY: M.J.C.
PLAN NO. 3 OF 9

Tab: PROPOSED | Plot Style: GCG-2018.ctb Plotted By: Lucas Bryerman

25128-bid.dwg Saved: 3/2/2026 2:49 PM Plotted: Mar 02, 2026 2:53 pm

GLENHAVEN AVENUE


NAD-83
PROP. CLOSE VALVE & REMOVE GATE BOX
PROP. CONNECTION TO EXISTING HOPKINS STREET (SOUTH) WATER MAIN
8"X8"X8" ANCHOR TEE (MJ)
8" GATE VALVES (2) (MJ)
8" 45° BENDS (2) (MJ)
8" DI PIPE
8"X6" REDUCER (MJ)
ADAPTER COUPLINGS
CUT AND CAP EXISTING MAINS
PROP. CONNECTION TO EXISTING HOPKINS STREET (NORTH) WATER MAIN
8"X8"X6" ANCHOR TEE (MJ)
8" GATE VALVE (MJ)
6" GATE VALVE (MJ)
6" 45° BENDS (2) (MJ)
6" DI PIPE
6" SOLID SLEEVE (MJ)
ADAPTER COUPLINGS
CUT AND CAP EXISTING MAINS
CLOSE AND BURY EXISTING WATER VALVES (2)
PROP. 8" CLDI WATER MAIN
REMOVE EXIST. WATER SERVICE AND. REPLACE WITH PROP. 3/4" OR 1" COPPER SERVICE, 3/4" OR 1" CORPORATION 3/4" OR 1" CURB STOP/BOX. MATCH EXISTING SIZE (TYP.)
ABANDON EXISTING WATER MAIN IN PLACE FROM STA 6+00 TO STA 23+00
INSTALL WATER MAIN UNDER SEWER MAIN AND DRAIN MAIN
PROPOSED CONNECTION OF 8" CLDI WATER MAIN TO HOPKINS STREET AFTER TESTING IS COMPLETED AND WHEN THE TEMPORARY BYPASS FEED IS REMOVED.
PETERS STREET
HOPKINS STREET
APPROX. PROPERTY LINE (TYP.)
APPROX. RIGHT OF WAY (TYP.)
#19 GLENHAVEN AVENUE
#20 GLENHAVEN AVENUE
#21 GLENHAVEN AVENUE
#22 GLENHAVEN AVENUE
#23 GLENHAVEN AVENUE
#25 GLENHAVEN AVENUE
#26 GLENHAVEN AVENUE
#28 GLENHAVEN AVENUE
#29 GLENHAVEN AVENUE
#30 GLENHAVEN AVENUE
#32 GLENHAVEN AVENUE
#33 GLENHAVEN AVENUE
#34 GLENHAVEN AVENUE
#28 HOPKINS STREET
WATER SERVICE OFF OF HOPKINS STREET
12+00
13+00
14+00
15+00
16+00
17+00
PROP. HYDRANT ASSEMBLY
8"X6" ANCHOR TEE (MJ)
6" GATE VALVE (MJ)
6" DI PIPE
HYDRANT
#40 GLENHAVEN AVENUE
#42 GLENHAVEN AVENUE
#44 GLENHAVEN AVENUE
#46 GLENHAVEN AVENUE
#35 GLENHAVEN AVENUE
#14 NEWTON STREET
#15 NEWTON STREET
#45 GLENHAVEN STREET
WATER SERVICE OFF OF NEWTON STREET
PROP. CONNECTION TO EXISTING NEWTON STREET WATER MAINS
8"X8"X8" ANCHOR TEE (MJ)
8" GATE VALVES (3) (MJ)
8" 45° BENDS (2) (MJ)
8"X6" REDUCER (MJ)
ADAPTER COUPLINGS
CUT AND CAP EXISTING MAINS
CLOSE AND BURY EXISTING WATER VALVE
INSTALL WATER MAIN OVER SEWER MAIN
PROP. 8" CLDI WATER MAIN
REMOVE EXIST. WATER SERVICE AND. REPLACE WITH PROP. 3/4" OR 1" COPPER SERVICE, 3/4" OR 1" CORPORATION 3/4" OR 1" CURB STOP/BOX. MATCH EXISTING SIZE (TYP.)
PROPOSED CONNECTION OF 8" CLDI WATER MAIN TO NEWTON STREET AFTER TESTING IS COMPLETED AND WHEN THE TEMPORARY BYPASS FEED IS REMOVED.
NEWTON STREET
17+00
18+00
19+00
20+00

NOTE:

1. THE EXISTING WATER MAIN ON GLENHAVEN AVENUE IS A MIX OF 4", 6" AND 8" PIPE, WITH MATERIALS INCLUDING AC PIPE, CAST IRON PIPE AND DUCTILE IRON PIPE.
2. THE EXISTING WATER MAIN DEPTH RANGES FROM 5' TO 2.5'.

PLAN
SCALE: 1" = 20'

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

PROPOSED WATER MAIN IMPROVEMENTS
GLENHAVEN AVENUE
STA 1+25 TO STA 20+65

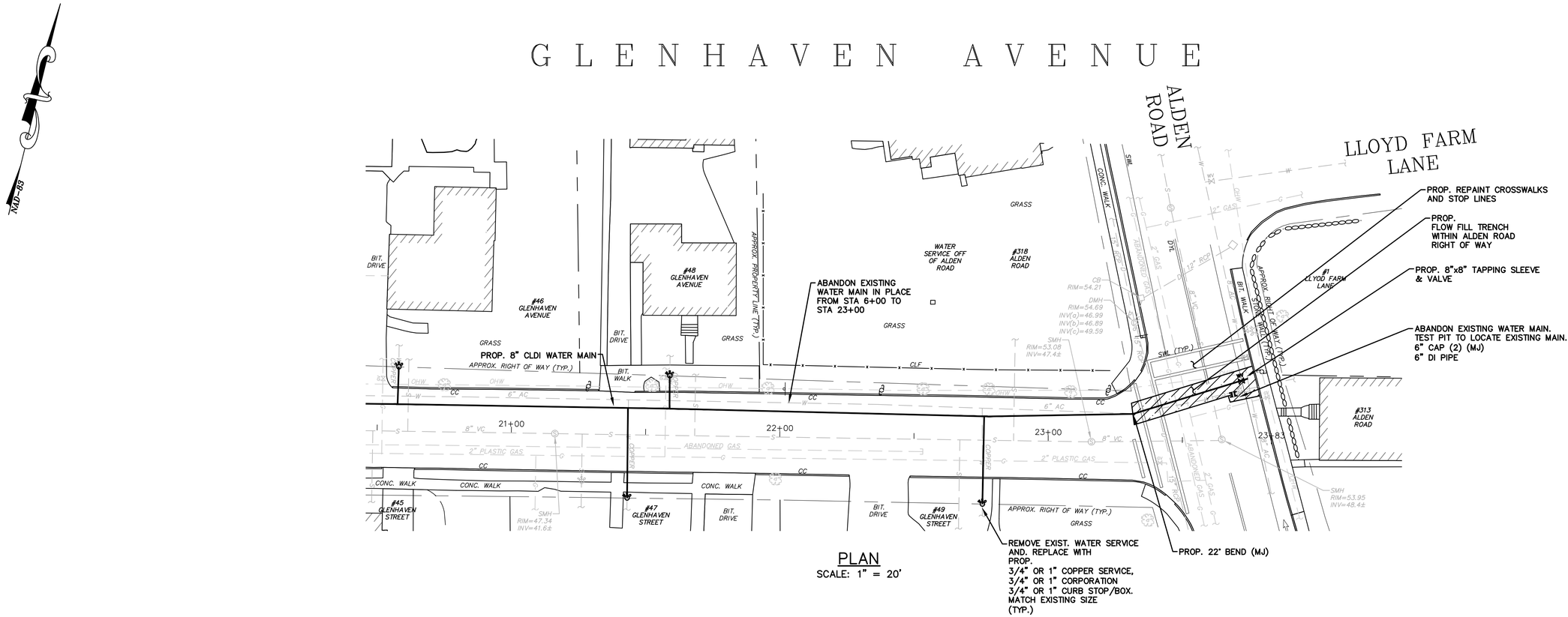
COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. CARTER
CIVIL
No. 39007
REGISTERED PROFESSIONAL ENGINEER
3/4/2026

GCG ASSOCIATES, INC.
WILMINGTON MASSACHUSETTS

SCALE: 1" = 20' DATE: MARCH 4, 2026

JOB NO.\FILE NAME: 25128-BID
DESIGNED BY: L.P.B.
DRAWN BY: W.P.S.
CHECKED BY: M.J.C.
PLAN NO. 4 OF 9

Tab: PROPOSED || Plot Style: GCG-2018.ctb Plotted By: Lucas Brissman
25128-bid.dwg Saved: 3/2/2026 2:49 PM Plotted: Mar 02, 2026 2:53 pm


GLENHAVEN AVENUE
ALDEN ROAD
LLOYD FARM LANE
MAD-83
#46 GLENHAVEN AVENUE
#48 GLENHAVEN AVENUE
#318 ALDEN ROAD
#1 LLOYD FARM LANE
#313 ALDEN ROAD
#45 GLENHAVEN STREET
#47 GLENHAVEN STREET
#49 GLENHAVEN STREET
BIT. DRIVE
GRASS
WATER SERVICE OFF OF ALDEN ROAD
APPROX. RIGHT OF WAY (TYP.)
PROP. 8" CLDI WATER MAIN
ABANDON EXISTING WATER MAIN IN PLACE FROM STA 6+00 TO STA 23+00
BIT. WALK
CONC. WALK
ABANDONED GAS
2" PLASTIC GAS
6" AC
8" VC
CLF
OHW
CC
SMH RIM=47.34 INV=41.6±
SMH RIM=53.08 INV=47.4±
SMH RIM=53.95 INV=48.4±
CB RIM=54.21
DMH RIM=54.69 INV(a)=46.99 INV(b)=46.89 INV(c)=49.59
21+00
22+00
23+00
23+83
PROP. REPAINT CROSSWALKS AND STOP LINES
PROP. FLOW FILL TRENCH WITHIN ALDEN ROAD RIGHT OF WAY
PROP. 8"x8" TAPPING SLEEVE & VALVE
ABANDON EXISTING WATER MAIN. TEST PIT TO LOCATE EXISTING MAIN. 6" CAP (2) (MJ) 6" DI PIPE
PROP. 22° BEND (MJ)
REMOVE EXIST. WATER SERVICE AND. REPLACE WITH PROP. 3/4" OR 1" COPPER SERVICE, 3/4" OR 1" CORPORATION 3/4" OR 1" CURB STOP/BOX. MATCH EXISTING SIZE (TYP.)

PLAN
SCALE: 1" = 20'

NOTE:

1. THE EXISTING WATER MAIN ON GLENHAVEN AVENUE IS A MIX OF 4", 6" AND 8" PIPE, WITH MATERIALS INCLUDING AC PIPE, CAST IRON PIPE AND DUCTILE IRON PIPE.
2. THE EXISTING WATER MAIN DEPTH RANGES FROM 5' TO 2.5'.

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

PROPOSED WATER MAIN IMPROVEMENTS
GLENHAVEN AVENUE
STA 20+65 TO STA 23+83

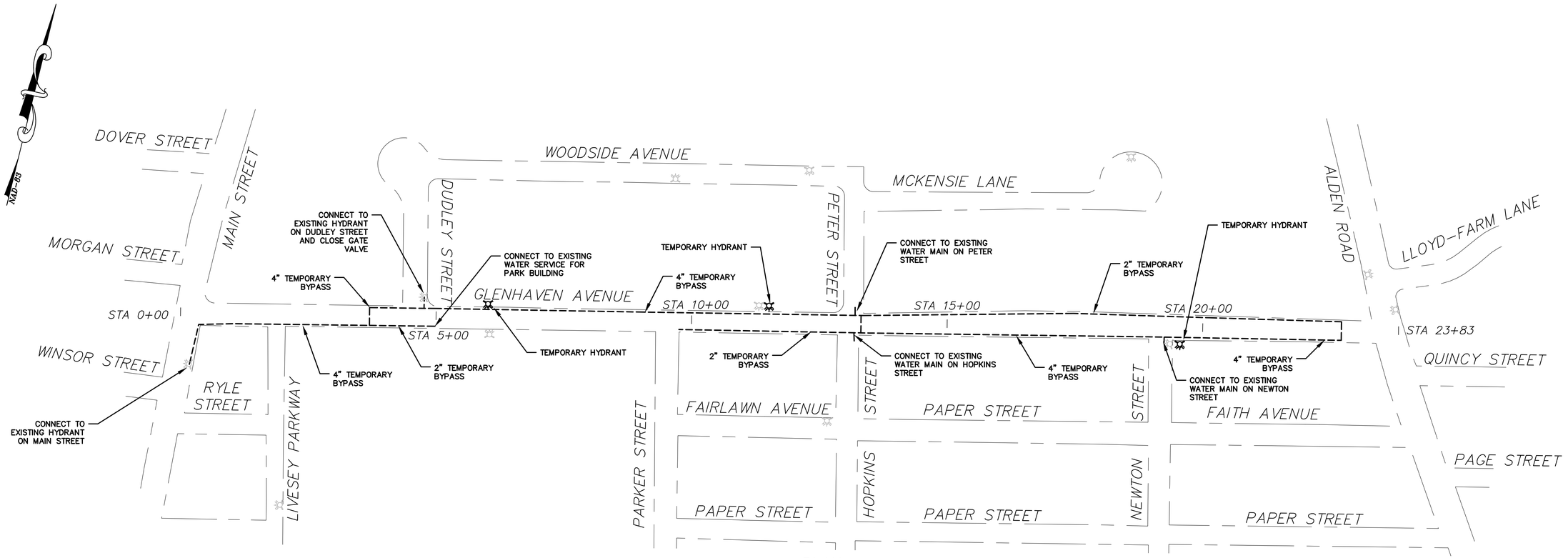
GCG ASSOCIATES, INC.
WILMINGTON MASSACHUSETTS

SCALE: 1" = 20' DATE: MARCH 4, 2026

JOB NO.\FILE NAME: 25128-BID
DESIGNED BY: L.P.B.
DRAWN BY: W.P.S.
CHECKED BY: M.J.C.
PLAN NO. 5 OF 9

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. CARTER
CIVIL
No. 35907
REGISTERED PROFESSIONAL ENGINEER
3/4/2026

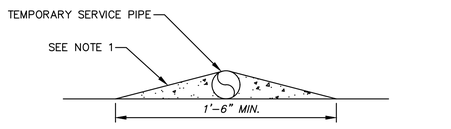
Tab: PROPOSED Plot Style: GCG-2019.ctb Plotted By: Lucas Brinkman
25128-bid.dwg Saved: 3/2/2026 2:49 PM Plotted: Mar 02, 2026 2:54 pm



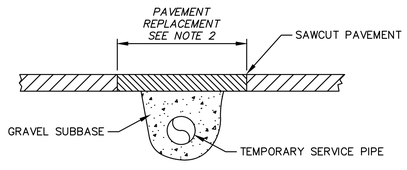
PLAN
SCALE: 1" = 100'

TEMPORARY BYPASS PIPING NOTES

1. ALL STREETS WILL REQUIRE THE EXISTING WATER MAIN TO BE REMOVED AND/OR ABANDONED IN PLACE. TEMPORARY BYPASS WATER MAIN AND SERVICES WILL BE REQUIRED.
2. PRIOR TO STARTING ANY WORK THAT WILL AFFECT SERVICE TO CUSTOMERS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CUSTOMERS TWO DAYS PRIOR TO SHUTDOWN.
3. TEMPORARY BYPASS SHALL BE CONSTRUCTED PER THE TEMPORARY BYPASS PLAN, INCLUDING LAYOUT OF THE BYPASS PIPING, TEMPORARY SERVICE LINES TO ALL CUSTOMERS, THE SPECIFIED BYPASS PIPE DIAMETER TO BE USED IN EACH LOCATION, AND THE TYPE AND LOCATION OF TEMPORARY FIRE HYDRANTS. THE BYPASS PIPING, IN MOST CASES, WILL BE LAID ABOVE GROUND AND SHALL BE 4" AND 2" AS REQUIRED. PAYMENT FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING BYPASS PIPING WILL BE PAID FOR UNDER THE ASSOCIATED TEMPORARY BYPASS ITEM.
4. THE STATIC PRESSURE IS APPROXIMATELY xxx PSI IN THE GLENHAVEN AVENUE AREA. THE CONTRACTOR SHALL COORDINATE WITH THE WATER CUSTOMER TO DETERMINE IF A PRESSURE REDUCING VALVE IS PRESENT INTERNALLY AND DETERMINE WHETHER THE LOCATION OF THE TEMPORARY BYPASS CONNECTION (TYPE A OR C) WILL INCREASE THE INTERNAL PRESSURE TO THE WATER USER. THE CONTRACTOR SHALL FURNISH AND INSTALL A PRESSURE REDUCING VALVE WITH THE BYPASS CONNECTION (TYPE A OR C) WHEN AN INCREASE IN PRESSURE WOULD RESULT WITHOUT ONE. THE PRESSURE REDUCING VALVE SHALL BE SET TO MAINTAIN THE REDUCED INTERNAL PRESSURE PRESENT PRIOR TO CONNECTING TO THE TEMPORARY BYPASS SYSTEM.
5. ANY CHANGES TO THE PROPOSED TEMPORARY BYPASS PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AT THE PRE-CONSTRUCTION MEETING. THE ENGINEER SHALL MAKE THE FINAL DECISION AS TO THE ROUTING AND SIZES OF ALL BYPASS LINES, BEFORE ANY BYPASS IS INSTALLED.
6. THE TEMPORARY BYPASS PIPING SHALL BE INSTALLED, TESTED AND APPROVED PRIOR TO THE REMOVAL OF THE EXISTING WATER MAIN AND THE INSTALLATION OF THE PROPOSED WATER MAIN.
7. THE CONTRACTOR SHALL USE CRUSHER-RUN MATERIAL (3/4"-1/4" STONE MIXED WITH STONE DUST) AT ALL DRIVEWAYS TO RAMP OVER THE BYPASS PIPING. AT CROSS STREETS, PIPING SHALL BE PLACED BELOW PAVING GRADE AND COVERED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL AFFECTED WATER CUSTOMERS, IN WRITING, OF SHUTTING OFF SERVICE AT LEAST TWO FULL DAYS PRIOR TO SHUTDOWN. NOTICE CARDS WILL BE FURNISHED BY THE CONTRACTOR WHICH WILL INCLUDE THE HOURS OF SHUTDOWN AND NOTE THAT A TEMPORARY RUSTY WATER CONDITION MAY EXIST. NOTICE CARDS WILL ALSO HAVE SPACE FOR THE CONTRACTOR TO FILL IN THE SPECIFIC DATES FOR EACH SHUTDOWN. THE WORK SHALL BE SCHEDULED IN SECTIONS, AS APPROVED BY THE ENGINEER, AS IT IS NECESSARY TO ALLOW FOR COMPLETION OF THE WORK AND RESTORATION OF SERVICE TO THE CUSTOMER WITHIN THE TIMES SPECIFIED BY THE ENGINEER.
9. WHEN THE CONTRACTOR IS INSTALLING THE TEMPORARY BYPASS SERVICES THEY ARE TO CLOSE THE VALVE WITHIN THE DWELLING ON THE STREET SIDE OF THE WATER METER.
10. THE TOWN OF FAIRHAVEN WILL FLUSH ALL NEW SERVICES PRIOR TO BEING DISCONNECTED FROM THE TEMPORARY BYPASS. THE CONTRACTOR IS REQUIRED TO LEAVE THE BYPASS ACTIVE AND SERVICE CONNECTED FOR 15 CALENDAR DAYS AFTER THE WATER SERVICE CONNECTION IS COMPLETED.



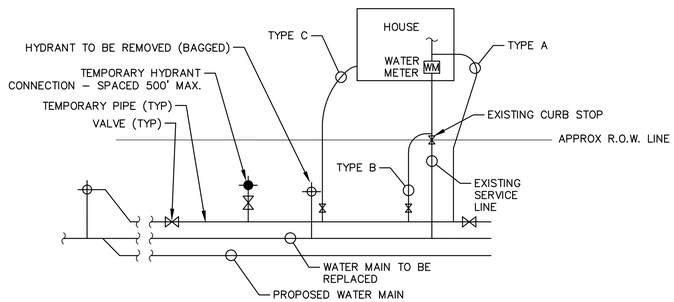
DRIVEWAY CROSSING



ROADWAY CROSSING

NOTES:
1. THE CONTRACTOR SHALL USE CRUSHER-RUN MATERIAL (3/4"-1/4" STONE MIXED WITH STONE DUST) AT ALL DRIVEWAYS TO RAMP OVER THE BYPASS PIPING.
2. AT CROSS STREETS, PIPING SHALL BE PLACED BELOW PAVING GRADE AND COVERED. ONCE THE BYPASS PIPING IS REMOVED THE CONTRACTOR SHALL PAVE THE OPENING PER THE TEMPORARY AND PERMANENT TRENCH PAVEMENT DETAIL (MILL AND OVERLAY) (TOWN ROADWAY) DETAILS AS DIRECTED BY THE ENGINEER.

TEMPORARY SERVICE PIPE CROSSING DETAIL
N.T.S.



CONNECTION TYPE A - TEMPORARY SERVICE HOSE WITH METER REMOVED
CONNECTION TYPE B - TEMPORARY SERVICE HOSE AT EXISTING CURB STOP
CONNECTION TYPE C - TEMPORARY SERVICE HOSE AT OTHER SUITABLE LOCATION

TYPICAL TEMPORARY SERVICE PIPE DETAIL
N.T.S.

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

TEMPORARY BYPASS PLAN

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. CARTER
CIVIL
No. 35007
REGISTERED PROFESSIONAL ENGINEER
3/4/2026

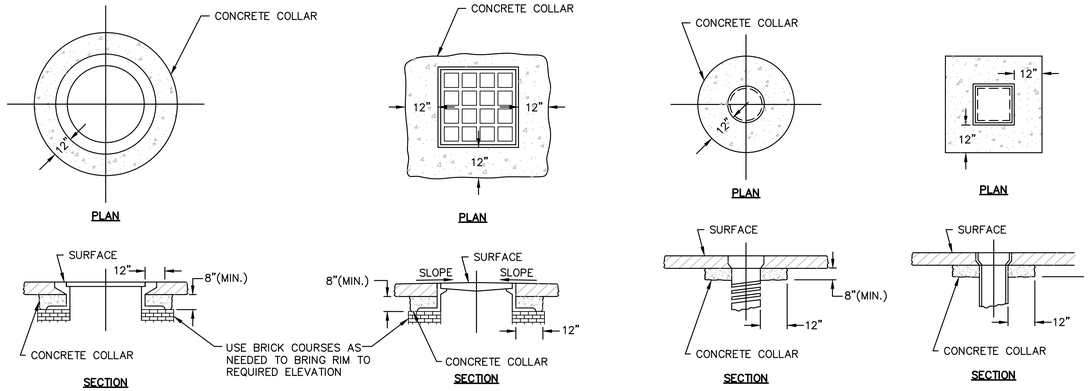
GCG ASSOCIATES, INC.
WILMINGTON MASSACHUSETTS

SCALE: 1" = 100' DATE: MARCH 4, 2026

JOB NO.\FILE NAME: 25128-BID
DESIGNED BY: L.P.B.
DRAWN BY: W.P.S.
CHECKED BY: M.J.C.
PLAN NO. 6 OF 9

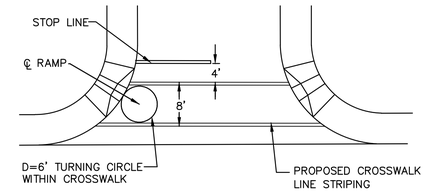
Tab: BYPASS Plot Style: GCG-2018.ctb Plotted By: Lucas Brosman

25128-bid.dwg Saved: 3/2/2026 2:49 PM Plotted: Mar 02, 2026 2:54 pm



DETAILS FOR ADJUSTING CASTINGS

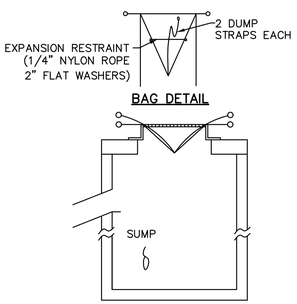
N.T.S.

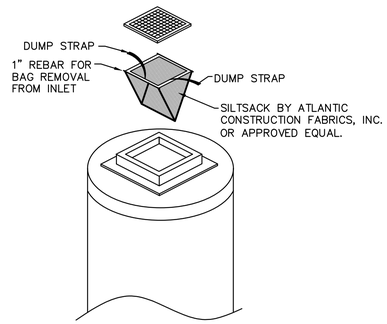


NOTES:
1. CROSSWALKS SHALL BE PAINTED AT ALL PAIRED WHEELCHAIR RAMP LOCATIONS WITHIN THE LIMITS OF WORK.
2. THE CROSSWALKS AND STOP LINES SHALL BE PAINTED WITH 12" WIDE, WHITE REFLECTORIZED, EPOXY PAINT IN THE PATTERN SHOWN.

PAIRED WHEELCHAIR RAMP & CROSSWALK DETAIL

N.T.S.

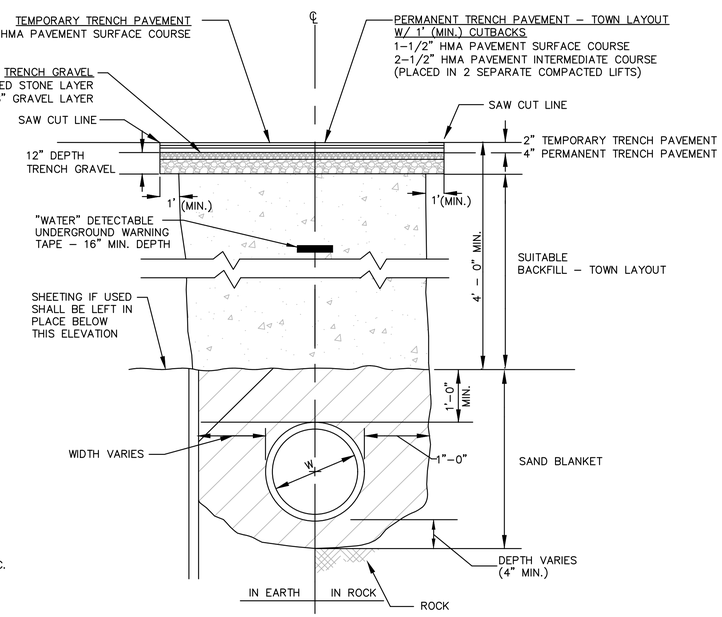



DUMP STRAP
1" REBAR FOR BAG REMOVAL FROM INLET
DUMP STRAP
SILTSACK BY ATLANTIC CONSTRUCTION FABRICS, INC. OR APPROVED EQUAL.

1. SILT SACKS SHALL BE INSTALLED IN ALL CATCH BASINS DURING CONSTRUCTION PERIOD.
2. INSPECTION SHALL BE WEEKLY AND REPAIR/REPLACEMENT MADE PROMPTLY AS NEEDED.
3. SILT SACKS SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

SILTSACK DETAIL

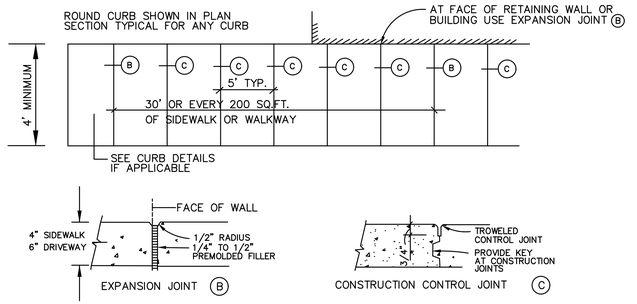
N.T.S.



TRENCH DETAIL NOTES: STATE LAYOUT WATER MAIN TRENCH

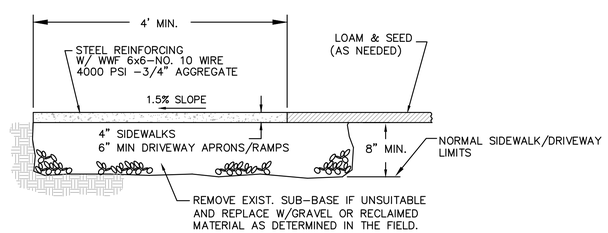
1. THE CONTRACTOR SHALL SHALL BE PAID TO FURNISH AND INSTALL THE WATER MAIN UNDER THE ASSOCIATED BID ITEM(S).

TOWN LAYOUT TRENCH DETAIL


ROUND CURB SHOWN IN PLAN SECTION TYPICAL FOR ANY CURB
AT FACE OF RETAINING WALL OR BUILDING USE EXPANSION JOINT (B)
4' MINIMUM
5' TYP.
30' OR EVERY 200 SQ.FT. OF SIDEWALK OR WALKWAY
SEE CURB DETAILS IF APPLICABLE
FACE OF WALL
4" SIDEWALK
6" DRIVEWAY
1/2" RADIUS
1/4" TO 1/2" PREMOLDED FILLER
EXPANSION JOINT (B)
TROWELED CONTROL JOINT
PROVIDE KEY AT CONSTRUCTION JOINTS
CONSTRUCTION CONTROL JOINT (C)

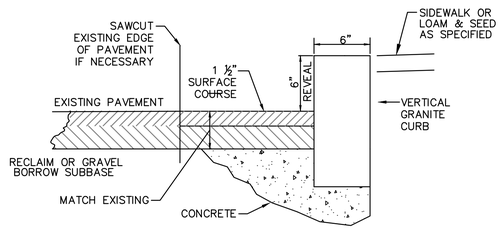
TYPICAL CEMENT CONCRETE SIDEWALK PLAN

N.T.S.


4' MIN.
STEEL REINFORCING W/ WWF 6x6–NO. 10 WIRE 4000 PSI –3/4" AGGREGATE
LOAM & SEED (AS NEEDED)
1.5% SLOPE
4" SIDEWALKS
6" MIN DRIVEWAY APRONS/RAMPS
8" MIN.
NORMAL SIDEWALK/DRIVEWAY LIMITS
REMOVE EXIST. SUB–BASE IF UNSUITABLE AND REPLACE W/GRAVEL OR RECLAIMED MATERIAL AS DETERMINED IN THE FIELD.

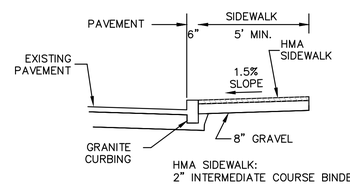
SIDEWALK DETAIL

N.T.S.



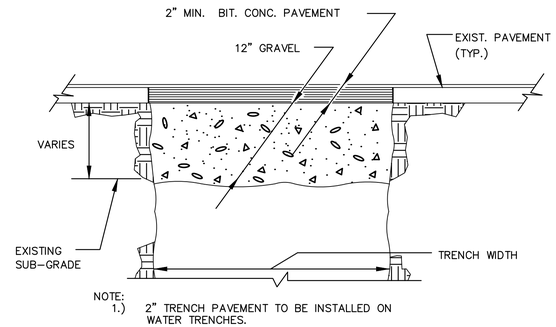
CONCRETE CURB DETAIL

N.T.S.



TYPICAL SIDEWALK WITH GRANITE CURB CROSS SECTION

N.T.S.



TEMPORARY TRENCH PAVEMENT DETAIL

NOT TO SCALE

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

DETAILS I

MICHAEL J. CARTER — No. 35007 — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF MASSACHUSETTS

3/4/2026

GCG ASSOCIATES, INC.
WILMINGTON MASSACHUSETTS

SCALE: 1" = 20' DATE: MARCH 4, 2026

JOB NO.\FILE NAME: 25128–BID

DESIGNED BY: L.P.B.
DRAWN BY: W.P.S.
CHECKED BY: M.J.C.

PLAN NO. 7 OF 9

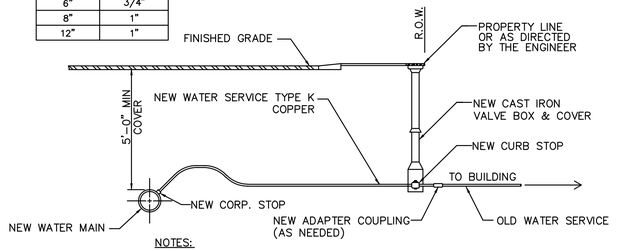
Tab: DETAILS I Plot Style: GCG-2016.ctb Plotted By: Lucas Brinkman

25128-bid.dwg Saved: 3/2/2026 2:49 PM Plotted: Mar 02, 2026 2:55:pm

MAXIMUM SIZE TAPPED CONNECTION *

WATER MAIN DIAMETER	MAXIMUM TAP DIAMETER
4"	1/2"
6"	3/4"
8"	1"
12"	1"

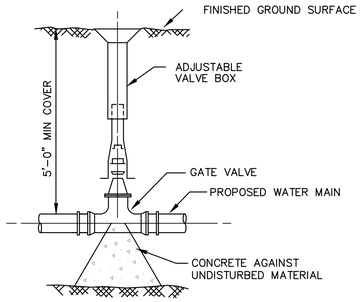
* WHERE THE SIZE OF THE CONNECTION EXCEEDS THAT GIVEN IN THE TABLE, A BOSS SHALL BE PROVIDED OR THE TAP SHALL BE MADE BY MEANS OF MULTIPLE CORP. STOPS AND BRANCH FITTINGS, TAPPED TEE, OR TAPPED SADDLE.



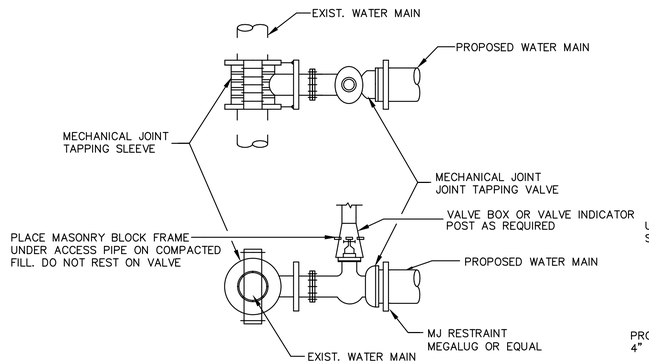
NOTES:

1. ALL WATER SERVICES AND CURB STOPS SHALL BE REPLACED UP TO THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. ALL FITTINGS REQUIRED SHALL BE INCLUDED IN THE PRICE OF THE PIPE.
2. ALL 1 1/2" WATER SERVICES REQUIRE SADDLE CONNECTIONS OR TAPPING TEES.

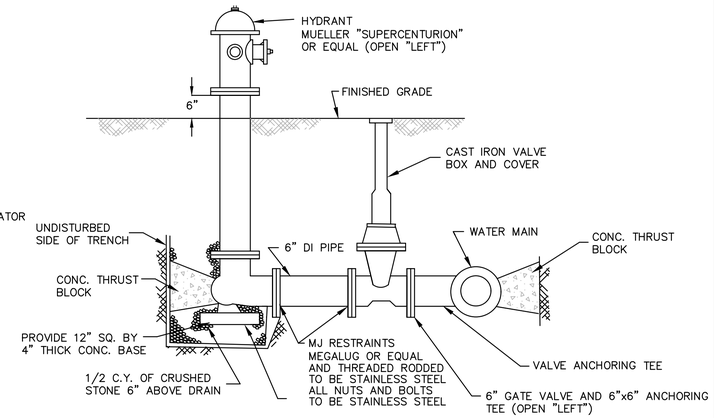
WATER SERVICE CONNECTION
NTS



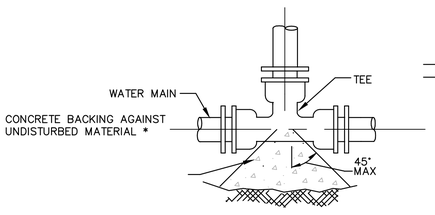
WATER VALVE DETAIL
NTS


EXIST. WATER MAIN
PROPOSED WATER MAIN
MECHANICAL JOINT TAPPING SLEEVE
MECHANICAL JOINT JOINT TAPPING VALVE
VALVE BOX OR VALVE INDICATOR POST AS REQUIRED
PLACE MASONRY BLOCK FRAME UNDER ACCESS PIPE ON COMPACTED FILL. DO NOT REST ON VALVE
PROPOSED WATER MAIN
MJ RESTRAINT MEGALUG OR EQUAL
EXIST. WATER MAIN

TYPICAL TAPPING SLEEVE AND VALVE
N.T.S.

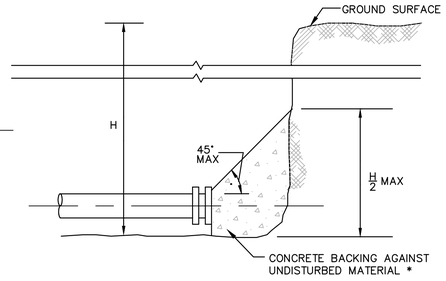

HYDRANT MUELLER "SUPERCENTURION" OR EQUAL (OPEN "LEFT")
6"
FINISHED GRADE
CAST IRON VALVE BOX AND COVER
UNDISTURBED SIDE OF TRENCH
6" DI PIPE
WATER MAIN
CONC. THRUST BLOCK
CONC. THRUST BLOCK
PROVIDE 12" SQ. BY 4" THICK CONC. BASE
MJ RESTRAINTS MEGALUG OR EQUAL AND THREADED RODDED TO BE STAINLESS STEEL ALL NUTS AND BOLTS TO BE STAINLESS STEEL
VALVE ANCHORING TEE
1/2 C.Y. OF CRUSHED STONE 6" ABOVE DRAIN
6" GATE VALVE AND 6"x6" ANCHORING TEE (OPEN "LEFT")

HYDRANT DETAIL
NTS

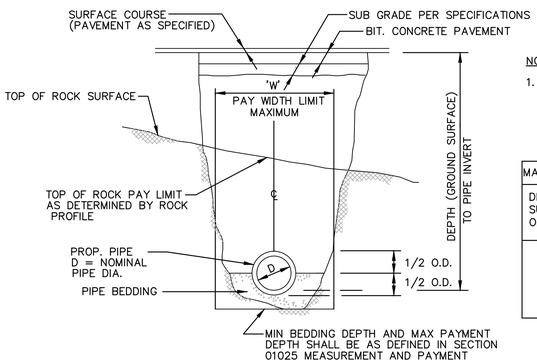


* SEE TABLE ON THRUST BLOCK BEARING AREAS FOR THE AREA OF CONCRETE REQUIRED.

TYPICAL WATER MAIN TEE THRUST BLOCK DETAILS
NTS



TYPICAL WATER MAIN PLUG
NTS

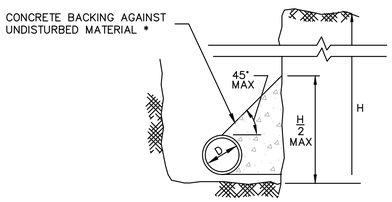

SURFACE COURSE (PAVEMENT AS SPECIFIED)
SUB GRADE PER SPECIFICATIONS
BIT. CONCRETE PAVEMENT
'W' PAY WIDTH LIMIT MAXIMUM
TOP OF ROCK SURFACE
TOP OF ROCK PAY LIMIT AS DETERMINED BY ROCK PROFILE
DEPTH (GROUND SURFACE) TO PIPE INVERT
PROP. PIPE D = NOMINAL PIPE DIA.
1/2 O.D.
1/2 O.D.
PIPE BEDDING
MIN BEDDING DEPTH AND MAX PAYMENT DEPTH SHALL BE AS DEFINED IN SECTION 01025 MEASUREMENT AND PAYMENT

NOTES:

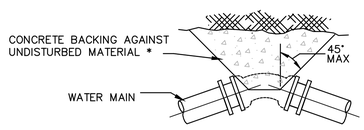
1. THE PAY LIMIT FOR ROCK REMOVAL OUTSIDE MANHOLES SHALL BE WITHIN A VERTICAL LINE OFFSET ONE FOOT (1') OUTSIDE THE WIDEST DIMENSION OF THE STRUCTURE OR SHALL BE THE MAXIMUM CONNECTING TRENCH WIDTH, WHICHEVER IS GREATER.

MAXIMUM PAYMENT FOR ROCK EXCAVATION CHART		
DEPTH FROM GROUND SURFACE TO INVERT OF PIPE	MAXIMUM PAY WIDTH 'W' NOMINAL PIPE DIA.	
	0"–24"	OVER 24"
DEPTH ≤ 12'	5'–0"	D+3'–0"
12'< DEPTH ≤ 20'	7'–0"	D+5'
DEPTH > 20'	9'–0"	D+7'

TRENCH IN ROCK PAYMENT LIMITS
NTS

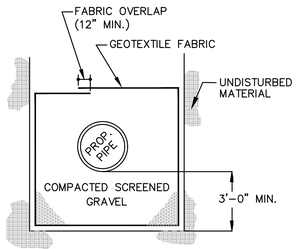


TYPICAL WATER MAIN THRUST BLOCK SECTION DETAILS
NTS



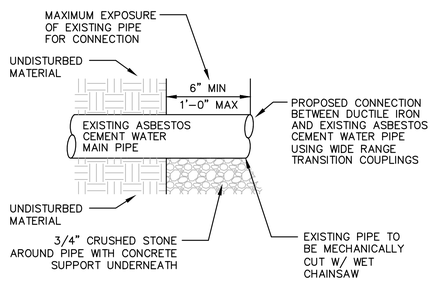
* SEE TABLE ON THRUST BLOCK BEARING AREAS FOR THE AREA OF CONCRETE REQUIRED.

TYPICAL WATER MAIN BEND THRUST BLOCK DETAILS
NTS



NOTE:
PLACEMENT OF GEOTEXTILE FABRIC SHALL EXTEND 5' ON EITHER SIDE OF POOR SUBGRADE CONDITIONS.

TRENCH EXCAVATION WITH UNSUITABLE SOIL CONDITIONS
NOT TO SCALE


MAXIMUM EXPOSURE OF EXISTING PIPE FOR CONNECTION
UNDISTURBED MATERIAL
6" MIN
1'–0" MAX
PROPOSED CONNECTION BETWEEN DUCTILE IRON AND EXISTING ASBESTOS CEMENT WATER PIPE USING WIDE RANGE TRANSITION COUPLINGS
EXISTING ASBESTOS CEMENT WATER MAIN PIPE
UNDISTURBED MATERIAL
3/4" CRUSHED STONE AROUND PIPE WITH CONCRETE SUPPORT UNDERNEATH
EXISTING PIPE TO BE MECHANICALLY CUT W/ WET CHAINSAW

NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING A CLEAN CONNECTION AND IF A ISSUE OCCURS WHILE THE PROJECT IS BEING CONSTRUCTED THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIRS AT THEIR COST.
2. AFTER CUTTING THE PIPE IS VISUAL INSPECTION SHALL BE MADE INSIDE THE PIPE TO VERIFY THAT NO COLLAR IS WITHIN 5 FEET OF THE END OF THE CUT. IF A COLLAR IS FOUND WITHIN 5 FEET OF THE END OF THE CUT THE CONTRACTOR SHALL GO BACK TO THE COLLAR AND CUT THE PIPE AT THIS LOCATION. ALL CUTS SHALL BE UNDER THE UNIT PRICE ITEM 1N.

CONNECTION BETWEEN ASBESTOS CEMENT PIPE AND DUCTILE IRON PIPE
N.T.S.

THRUST BLOCK BEARING AREAS FOR WATER PIPE

TABLE OF BEARING AREAS IN SQ. FT. AGAINST UNDISTURBED MATERIAL FOR WATER MAIN FITTINGS*			
SIZE OF MAIN (IN.)	90° BEND	TEES AND PLUGS	45° BEND
6	4	2.5	2
8	6	4	3
12	12	9	7
16	21	16	12

* TYPE OF SOIL IS MEDIUM CLAYEY, 6 OR MORE BLOWS PER FOOT, OR LOOSE GRANULAR, 9 OR MORE BLOWS PER FOOT. SOIL CONDITIONS OTHER THAN THOSE GIVEN WILL REQUIRE LARGER BEARING AREAS.

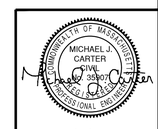
NOTES:

1. FOR FITTINGS WITH LESS THAN 45° DEFLECTION, USE BEARING AREAS FOR 45° BEND.
2. BEARING AREAS BASED ON HORIZONTAL PASSIVE SOIL PRESSURE OF 2000 P.S.F. AND INTERNAL WATER PRESSURE OF 150 P.S.I.G. JOINTS SHALL NOT BE ENCASED IN CONCRETE. BEARING AREAS MAY BE DISREGARDED FOR TRENCHES IN ROCK WHERE THE TOP OF THE ROCK FACE IS AT OR ABOVE THE CROWN OF THE PIPE. HOWEVER, CONCRETE BACKING SHALL BE PLACED BETWEEN THE PIPE AND THE ROCK FACE.
3. ALL FITTINGS AND VALVES SHALL BE DUCTILE IRON MECHANICAL JOINT AND RESTRAINED WITH MJ RESTRAINTS. (MEGALUG OR EQUAL). ALL BOLTS AND NUTS TO BE STAINLESS STEEL.
4. WATER MAINS SHALL BE C.L.D.I. CLASS 52 – DOUBLE CEMENT LINED.
5. ALL WORK RELATED TO THRUST BLOCKS SHALL BE PAID FOR UNDER THE CONCRETE ITEM.
3. HYDRANTS ARE REQUIRED TO BE RODDED IN ADDITION TO MJ RESTRAINTS. (MEGALUG OR EQUAL). ALL RODS, BOLTS AND NUTS TO BE STAINLESS STEEL.

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

DETAILS II



3/4/2026

GCG ASSOCIATES, INC.
WILMINGTON MASSACHUSETTS

SCALE: 1" = 20' DATE: MARCH 4, 2026

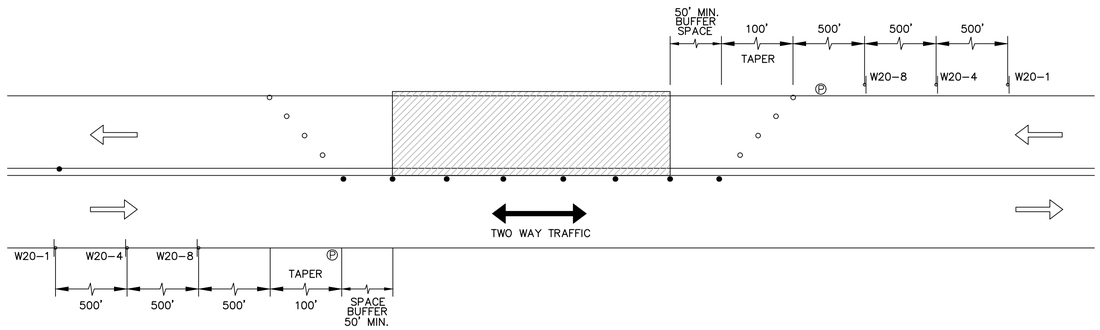
JOB NO.\FILE NAME: 25128–BID

DESIGNED BY: L.P.B.
DRAWN BY: W.P.S.
CHECKED BY: M.J.C.

PLAN NO. 8 OF 9

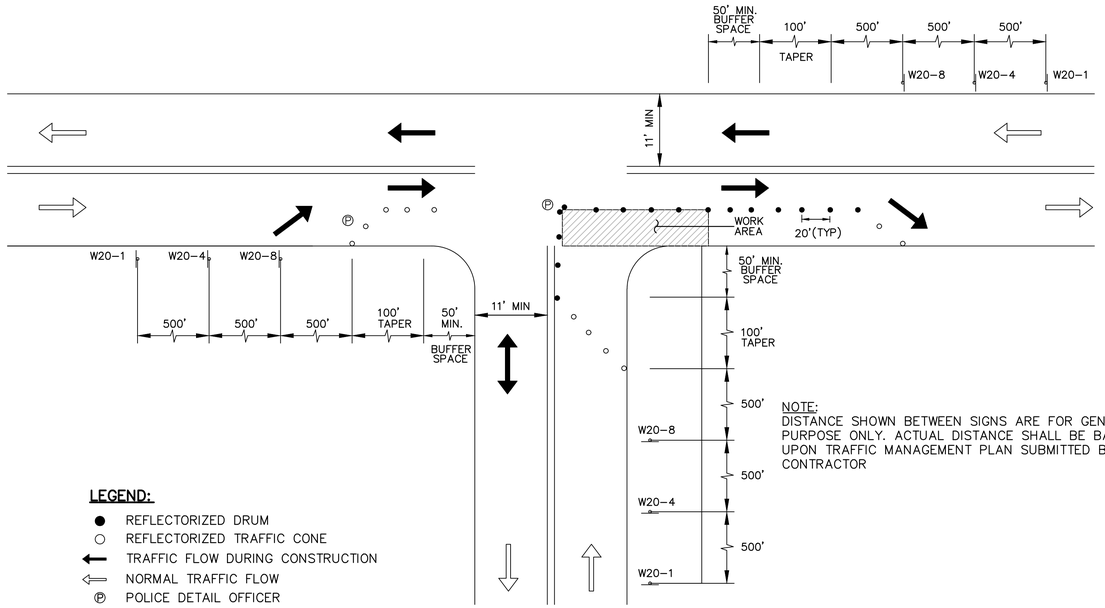
Tab: DETAILS II Plot Style: GCG-2016.ctb Plotted By: Lucas Brookman

25128-bid.dwg Saved: 3/2/2026 2:49 PM Plotted: Mar 02, 2026 2:50 pm



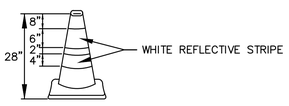
ONE LANE ALTERNATING TRAFFIC DAILY LANE CLOSURE

N.T.S.



"T" INTERSECTION DAILY LANE CLOSURE

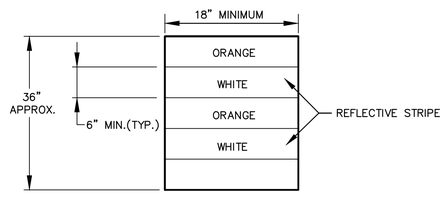
N.T.S.



1. TRAFFIC CONES SHALL BE DESIGN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CHAPTER VI, SECTION 6C-3, CONE DESIGN.
2. HEIGHT OF THE COMES SHALL BE 28".
3. CONES SHALL BE PREDOMINATELY FEDERAL ORANGE IN COLOR AND WITH REFLECTIVE STRIPS.
4. RUBBER CONES SHALL HAVE INTERIOR RIBS FOR RIGIDITY.
5. PLASTIC CONES SHALL BE COLOR IMPREGNATED.
6. CONES SHALL BE OF A THICKNESS NECESSARY TO WITHSTAND IMPACT WITHOUT DAMAGE TO EITHER CONE OR IMPACTING VEHICLE.
7. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY CONE THE ENGINEER DEEMS NOT SUITABLE FOR PURPOSE INTENDED.

TRAFFIC CONES

N.T.S.

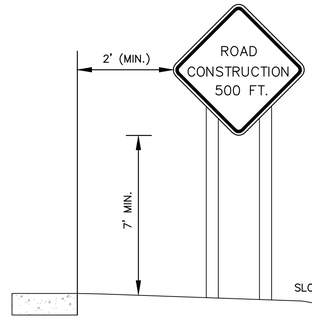


FRONT VIEW

1. TRAFFIC DRUM SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION M.U.T.C.D.
2. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY DRUM DEEMED NOT SUITABLE FOR THE PURPOSE INTENDED.
3. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE FLEXIBLE ENCAPSULATED LENS REFLECTIVE SHEETING.
4. REFLECTORIZED STRIPES SHOULD NOT BE PLACED OVER THE PROTRUDING CIRCUMFERENTIAL RIBS OF THE DRUM.
5. THE SECTIONS OF DRUMS NOT COVERED WITH REFLECTORIZED STRIPED SHALL BE ORANGE.
6. THE DESIGN OF THE DRUM REQUIRES A PHOTO ELECTRIC STEADY BURN (TYPE "C") WARNING LIGHT MOUNTED ON TOP.

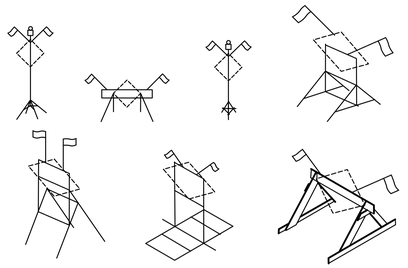
TRAFFIC DRUM

N.T.S.



HEIGHT AND LATERAL LOCATIONS OF STATIONARY CONSTRUCTION PERIOD SIGNS

N.T.S.



1. SIGN SUPPORTS SHALL BE CONSTRUCTED OF A SUITABLE MATERIAL. BREAKAWAY AND/OR COLLAPSIBLE FEATURES SHALL BE INCORPORATED IN THE SIGN SO THAT THE SUPPORT WILL NOT CONSTITUTE A HAZARD TO THE MOTORIST AND/OR WORKERS IN THE WORK AREA. SIGNS MUST MEET NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) 350 STANDARDS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND MASSDOT.
2. MOUNTING HEIGHT OF SIGN UTILIZING STRUCTURES DEPICTED ABOVE SHALL BE A MINIMUM OF 12", WITH A RECOMMENDED HEIGHT OF 18" ABOVE PAVEMENT.
3. THE ENGINEER RESERVES THE RIGHT TO REJECT ANY SUPPORT WHICH THE ENGINEER DEEMS A HAZARD, OR NOT IN THE BEST INTEREST OF THE MOTORING PUBLIC.
4. FLAGS AND/OR BARRICADE WARNING LIGHTS SHALL BE USED AS SHOWN ON THE TRAFFIC CONTROL PLANS AND AS REQUIRED BY THE ENGINEER.

TEMPORARY CONSTRUCTION PERIOD PORTABLE SIGN SUPPORTS

N.T.S.

GENERAL NOTES:

1. THE TRAFFIC MANAGEMENT SCHEMES ILLUSTRATE PERTINENT TRAFFIC CONTROLS. THE CONTRACTOR SHALL SUBMIT A TRAFFIC MANAGEMENT PLAN (TMP) FOR APPROVAL BY THE TOWN AND ENGINEER. IF DETOURS ARE REQUIRED, THEY SHALL BE INCLUDED IN THE TMP.
2. THE TOWN AND GCG ASSOCIATES ARE NOT RESPONSIBLE IN ANY WAY FOR THE ENFORCEMENT, LAYOUT OR DESIGN OF THE TMP. POLICE DETAILS SHALL BE USED TO DIRECT TRAFFIC AROUND A WORK AREA IF TRAFFIC MUST BE TEMPORARILY STOPPED OR REROUTED TO ALLOW FOR MOVEMENT OF WORK VEHICLES OR OTHER EQUIPMENT.
3. ALL TRAFFIC CONTROL TO MEET MASSDOT AND MUTCD (LATEST EDITION).
4. CHANNELIZE TRAFFIC AS REQUIRED USING REFLECTORIZED DRUMS AND STEADY-BURN LIGHTS, RELOCATE DRUMS AS REQUIRED DURING CONSTRUCTION. CHANNELIZING DEVICES ARE TO BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC.
5. NO SIGNS SHALL BE ATTACHED TO DRUMS OR CONES. ALL SIGNS SHALL BE ATTACHED TO INDEPENDENT SUPPORTS.
6. ALL SIGNS SHALL BE REFLECTORIZED OR ILLUMINATED.
7. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED ON EARLY WARNING SIGNS AS DIRECTED BY THE ENGINEER.
8. CONSTRUCTION ON THIS PROJECT SHALL BE RESTRICTED TO 8 HOURS A DAY OR AS DIRECTED BY THE ENGINEER.
9. PROVIDE POLICE DETAILS TO DIRECT TRAFFIC AS REQUIRED. TRAFFIC CONTROL OFFICERS SHALL BE IN TWO-WAY RADIO COMMUNICATION WITH EACH OTHER AND SHALL BE CLEARLY VISIBLE TO THE TRAFFIC BEING DIRECTED FOR A DISTANCE OF 75 METERS.
10. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED IMMEDIATELY WHEN NO LONGER NEEDED.
11. ACCESS/EGRESS OF ALL DRIVEWAY ENTRANCES AND EXITS SHALL BE MAINTAINED AT ALL TIMES.
12. CONTRACTOR SHALL PROVIDE EMERGENCY VEHICLE ACCESS AT ALL TIMES.
13. NO ON-STREET PARKING WILL BE ALLOWED WITHIN THE TRAFFIC CONTROL AREA DURING NORMAL WORKING HOURS.
14. NO DETOURING OF TRAFFIC WILL BE ALLOWED WITHOUT WRITTEN CONSENT OF THE ENGINEER AND TOWN OF FAIRHAVEN OFFICIALS.
15. DISTANCES MAY BE ADJUSTED TO ACCOMMODATE FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.
16. ALL OPEN TRENCHES SHALL BE TEMPORARILY PAVED EVERY FRIDAY. REFER TO PLANS FOR ADDITIONAL INSTRUCTION.
17. ADDITIONAL CONSTRUCTION SIGNS MAY BE REQUIRED BY THE ENGINEER OR TOWN OF FAIRHAVEN DURING THE COURSE OF CONSTRUCTION.

STATIONARY CONSTRUCTION PERIOD SIGNS

SIGN		WIDTH	HEIGHT
ROAD WORK AHEAD	CUSTOM-A	48"	48"
ROAD WORK AHEAD	CUSTOM-B	48"	48"
ROAD WORK AHEAD	CUSTOM-C	48"	48"
ROAD WORK AHEAD	CUSTOM-D	48"	48"
ROAD CONSTRUCTION 1000 FT.	W20-1a	48"	48"
ROAD CONSTRUCTION 500 FT.	W20-1b	48"	48"
END CONSTRUCTION	G20-2	36"	18"
VARIABLE MESSAGE BOARD	VMB		

(REFER TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION)

TEMPORARY CONSTRUCTION PERIOD SIGNS

SIGN		WIDTH	HEIGHT
ROAD WORK AHEAD	W20-1	36"	36"
ONE LANE ROAD AHEAD	W20-4	36"	36"
POLICE OFFICER AHEAD	W20-8	36"	36"

(REFER TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION)

BID SET

TOWN OF FAIRHAVEN, MASSACHUSETTS
GLENHAVEN AVENUE WATER MAIN REPLACEMENT PROJECT

DETAILS III

GCG ASSOCIATES, INC.
WILMINGTON MASSACHUSETTS

SCALE: 1" = 20' DATE: MARCH 4, 2026

JOB NO.\FILE NAME: 25128-BID
DESIGNED BY: L.P.B.
DRAWN BY: W.P.S.
CHECKED BY: M.J.C.
PLAN NO. 9 OF 9

COMMONWEALTH OF MASSACHUSETTS MICHAEL J. CARTER CIVIL No. 35907 REGISTERED PROFESSIONAL ENGINEER
3/4/2026

Tab: DETAILS III Plot Style: GCG-2018.ctb Plotted By: Lucas Brinkman

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